

Appropriative Practices and the Ontology of Economic Form

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Resumo

Apesar de suas diferenças, tanto a economia tradicional quanto a economia política Marxista veem a economia contemporânea como um sistema de mercado completamente capitalista. Isso se traduz tanto na desconsideração de grandes áreas da economia, quanto no ocultamento da presença generalizada de outras formas econômicas. Esta situação se tornou mais significativa e mais óbvia com a profusão de novos formatos econômicos na crescente economia digital, inclusive de tipos de dádivas e híbridos de dádiva e mercadoria. Em resposta, este trabalho propõe uma nova estrutura para analisar os diversos sistemas econômicos: uma ontologia das formas econômicas, na qual cada tipo é um complexo de *práticas apropriativas*. Diferentes formatos econômicos são estruturados por diferentes combinações de práticas e, podemos explicar como cada tipo opera pela análise das práticas envolvidas, e as tendências geradas por sua interação. Este argumento é demonstrado pela aplicação rápida a alguns exemplos da economia digital contemporânea: os serviços de busca da Wikipedia, Apple e Google. Este trabalho também deve ser lido como uma aplicação do realismo crítico a um caso empírico e, portanto, como um exemplo de algumas questões que surgem quando tentamos aplicar a abordagem realista na pesquisa social.

Palavras-chave: práticas apropriativas; economia digital; economia diversificada; ontologia econômica; economia política.

Abstract

Despite their differences, both mainstream economics and Marxist political economy see the contemporary economy as a thoroughly capitalist market system. This leads both to ignore large areas of the economy and thus to obscure the widespread presence of other economic forms. This has become both more significant and more obvious with the profusion of novel economic forms in the growing digital economy, including gift forms and gift-commodity hybrids. In response, this paper proposes a new framework for analysing diverse economic systems: an ontology of economic forms in which each form is a complex of *appropriative practices*. Different economic forms are structured by different combinations of practices, and we can explain how each form operates by analysing the practices involved and the tendencies generated by their interaction. The argument is illustrated by applying it briefly to some sample cases from the contemporary digital economy: Wikipedia, Apple, and Google's web search service. The paper may also be read as an application of critical realism to an empirical case and thus as an illustration of some of the issues that arise when we seek to apply the realist framework in social research.

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Introduction

For almost as long as economics has existed, heterodox economists have criticised the mainstream for its inadequacy as a theory of the market economy. The mainstream, however, is inadequate not only because it misrepresents and misunderstands market systems, but also because it ignores and obscures the substantial and varied non-market sectors of our economy. This is not only an academic problem but also a political problem, because obscuring the existing non-market forms of economy conceals the possibility that we can change our economy by building on the alternative economic forms that already surround us.

We therefore need not only a new kind of economics but a new kind of political economy: a perspective that enables us to think constructively about a far wider range of alternatives to the market. Building on the argument of my *Profit and Gift in the Digital Economy* (Elder-Vass, 2016a), this paper argues that we can begin to construct such a political economy by developing a new ontology of economic form: an account of different economic forms that sees them as complexes of *appropriative practices*. After developing the arguments above, the paper illustrates the proposed ontology by showing how it may be applied to several cases from the contemporary digital economy: Wikipedia, Apple and Google's search business.

The paper may also be read as an application of critical realism to an empirical case. Critical realism as such is focused on somewhat abstract questions of social ontology, but it was developed to be of value to social research, and there is considerable interest amongst social scientists in how it can be brought to bear on substantive issues of social theory and social research. Indeed, as I have argued elsewhere, social theory and social ontology are interdependent in both directions: while social ontology provides a framework for

social theory, it is a framework that we must be prepared to modify and enhance in response to empirical work (Elder-Vass, 2007). The present paper is an example of this process in action: it is strongly oriented to questions of social ontology, builds on a critical realist framework, but also proposes extensions to our more familiar ontologies of the economy, extensions that are novel for critical realism as well as for competing traditions. That is not to say that these extensions are necessarily implied by critical realist philosophy: there are potentially many different ways of applying the broader realist framework to empirical questions, and critical realists will not necessarily agree on which is the most coherent, both with the world and with critical realism itself.

The paper also illustrates the point that critical realism can be connected to a variety of political perspectives. While it is generally associated with an emancipatory politics, and its founder Roy Bhaskar was clearly committed to political emancipation, there are many varieties of emancipatory politics, and this paper advocates a somewhat unconventional variety.

Blinkered economics

Both the mainstream neoclassical tradition and the leading critical alternative, Marxist political economy, see the economy through sets of blinkers. Looking at the world through their blinkers, each tradition can see only a single economic form in the contemporary economy, and a single mechanism that is taken to overwhelmingly dominate the functioning of that form.

Through the mainstream's blinkers, one can see only the market, and the economy is identified more or less exclusively with the market. Furthermore, neoclassical analyses are dominated by an obsession with a single mechanism: price equilibration resulting from competition between optimizing agents. Other factors may be considered, but always in relation to the assumption that this is the normal form of the economy and the dominant mechanism in

determining economic outcomes (see Keen, 2011 for a critique).

Marxist political economy improves on this by recognising that economic forms are historically contingent – that there are different economic forms in different societies in different periods. Yet Marxists don their own set of blinkers when they look at the *contemporary economy*. Through these blinkers, one can see only one utterly dominant economic form: capitalism, seen as the production of commodities by means of wage labour. While other economic forms are sometimes noticed in the margins of the visible field, in Marxist analyses of contemporary society they are invariably regarded as subsidiary to capitalism. And like the mainstream, Marxist analysis of the economy is also dominated by an obsession with a single mechanism: not price equilibration this time, but rather the extraction of surplus value from wage labour (Elder-Vass, 2016a, Chapter 3).

The mainstream and Marxist traditions differ hugely in many other respects, but they share a narrowness of vision that arises from imposing a single universal model onto the analysis of the contemporary economy. Although they describe it in different terms, both identify the contemporary economy essentially with the market or commodity economy, treating other forms as subsidiary or simply ignoring them (Gibson-Graham, 2006b). And although they understand the central economic mechanisms differently, both analyse the economy in terms of one central dominant mechanism. For the mainstream that mechanism is price equilibration in the market and for Marxists it is the extraction of surplus value. For both traditions, all conceptual roads lead back to their favoured mechanism, and the result is that they find their favoured mechanism everywhere.

Largely as a result of these academic traditions, we live and work under a discursive regime that represents the economy as a market economy (Gibson-Graham, 2006b). I do not mean that it is represented as a partially marketised economy, or an economy that is currently dominated in some senses by a market sector, as if being a

market economy was a contingent empirical fact. I mean that our very concept of the economy has been fused by definition with the concept of the market. Only those activities that involve buying and selling, or production for selling, are treated as economic. Only those activities are *counted* as economic, and they are counted only by being measured in terms of a price that is realised on the market (Mitchell, 2005). The one partial exception is the activities of the state, but even these are measured in terms of prices, though usually the prices paid for inputs rather than outputs.

Economic diversity

However, if we remove these blinkers, we begin to see that there is a vast range of economic activity that does not correspond to these models.

First, we find a range of activity that is not governed by the market. Perhaps the most obvious case, and the one that even the dominant mainstream and critical traditions have been forced to theorise, is the provision of services by the state. Both models tend to accommodate this by deprecating it. For some mainstream economists the state may be useful for addressing market failures but for many others it is simply an obstacle to economic efficiency that should be replaced by market solutions. It rarely occurs to either wing of the mainstream that the state may constitute a range of economic forms that are worth analysing in their own right in terms of some other logic than market forces. For Marxists the state is generally seen as merely a pawn of the capitalist class: not a site of accumulation in itself but a means for securing the capacity of capitalists to accumulate. Like the neoclassicals, it rarely occurs to them that the state within a so-called capitalist system might be worthy of attention as a type of economic form with its own characteristic mechanisms and tendencies.

Beyond the state, though, there is also the gift economy. Although it is largely ignored by both traditions, in reality the gift economy is vast, including for example

charitable giving, volunteering, blood and organ donation, ritual gifts on birthdays and other occasions, assistance to friends, neighbours, co-workers and indeed unknown passers-by, bequests, the creation of digital resources that are then freely shared with others on the Internet (including, for example, web pages, advice offered on Internet forums, Wikipedia pages, videos posted on YouTube, and open-source software), and perhaps most substantially of all, sharing of resources and caring labour within the household (Elder-Vass, 2016a, p. 6)

To take only the last of these cases, caring and domestic work in the household is largely done for nothing, and food, clothing, shelter, and a whole range of services are routinely given to other family members (most obviously to children by their parents or carers) with no payment or reward. One study estimates that in terms of the labour time employed (even when valued in rather unfavourable terms) in a reasonably typical wealthy country, the household sector is approximately as large as the entire formal economy (Ironmonger, 1996). In less wealthy countries, the non-market family sector may be even more important, given its central role in subsistence agriculture.

Even amongst market forms, there are also varieties that do not always fit well with the dominant models. Co-operatives and small family businesses, for example, may manage their prices in a similar way to profit oriented firms, but can they really be read as generating surplus value by exploiting labour?

All of these sectors of the economy are hidden by hegemonic discourses that tend to identify the economy exclusively with the market (Gibson-Graham, 2006a, 2006b). But, as Gibson-Graham argue, by shaping the *counterhegemonic* agenda in terms that also rest on seeing the economy as overwhelmingly a market economy – even if it offers a different set of labels and analyses – the Marxist tradition has also made a major

contribution to the hegemony of the market concept of the economy (Gibson-Graham, 2006b). When both advocates and critics of capitalism converge on an interpretation, escaping from it is doubly difficult.

To do so we must actively revise our understanding of the economy. Fortunately there is already a tradition (drawing on Polanyi, 2001, pp. 243–4), amongst some feminist, institutionalist and realist economists, that has provided a more useful concept of the economy: the *provisioning economy* (Dugger, 1996; Garnett, 2007; Gruchy, 1987, pp. 4–7, 21; Nelson, 1993; Power, 2004; Sayer, 2004). The provisioning economy includes *all* those activities that create goods and services for human use rather than just that portion of production that creates goods and provides services for sale on the market². By thinking of the economy in these terms, instead of identifying it by default with the market, we open up the conceptual space required for economics to theorise non-market forms of economy.

A New Landscape

The conventional understanding of the economy becomes even less satisfactory when we consider the new digital economy, and in particular the Internet economy. One consequence of ubiquitous computing and the Internet has been to slash the marginal cost of copying and transmitting information to virtually zero. As a result it has become viable to give away information products on a vast scale at remarkably low costs compared to the cost of giving away material goods or even services delivered by human beings. With information products of many kinds occupying an increasingly central role in contemporary economies/societies, this has posed a major challenge to the commodity economy (cf. Mason, 2016).

The very architecture of the World Wide Web is built on the provision of free information goods. Every time a user accesses a page using

² Defining provisioning precisely is problematic, but it remains a more useful way of understanding the breadth of the economy than the market perspective (Elder-Vass, 2016a, pp. 27–32).

a web browser, information is copied across the network from a web server to the user's device, almost always free of charge. Many web sites are based on the free provision of information, and some of them on quite deliberately non-profit models. There has been a long history of peer to peer file sharing, for example, and shortly I will consider one of the best known examples of the digital gift economy: Wikipedia.

These are economic spaces where there is no price and hence the concept of price equilibration is meaningless. They are spaces where there is no wage labour and so the concept of exploitation of wage labour is meaningless. They are literally incomprehensible within frameworks that identify the economy exclusively with the market economy, and yet they are spaces where people are still working to provide goods for others: they are parts of the provisioning economy.

Most intriguing of all, this is also a space that has seen numerous attempts, some of them enormously successful, by capitalist companies to make profits from hybrid models that are built around giving away digital goods. Typically these link digital gifts with opportunities for advertising, which is sold as a commodity, but the advertising business simply cannot operate without the consumer-facing gift structures in which wage labour and price equilibration are absent. In cases like these we find profit-oriented economic practices inextricably entangled with gift economy practices (Fuchs, 2008, pp. 161–189).

An Ontology of Economic Form

To make sense of the diversity of the economy, we must discard the assumptions of both the mainstream and the Marxist traditions. Both are built around inadequate ontologies of economic form. In the neoclassical tradition, that ontology is implicit, but it is nevertheless fundamental to the whole tradition: the belief that economic structures are essentially market structures. In the Marxist tradition, it is much more explicit: the idea that the economy of any given period takes the form of a particular mode of production.

While the recognition that economic forms vary over time creates the logical need to accommodate cases where multiple forms coexist, even if only during periods of transition, such coexistence tends to be marginalised by always treating one mode of production as dominant (Cohen, 1978, pp. 77–78; Elder-Vass, 2016a, pp. 53–61; Hodgson, 1999, p. 124).

Because the contemporary economy is much more diverse than either of these ontologies allow, we need to replace them with one that is explicitly open, one that recognises that multiple economic forms (both varieties of capitalism and non-capitalist forms) coexist and interact. Thus, for example, our contemporary economy includes multiple varieties of capitalism, publicly owned enterprises, state service provision, co-operatives, charities, households structured around gift practices, and no doubt many other economic forms, and rather than marginalising most of the forms on this list an open ontology of economic form should address each of them.

This paper only takes some illustrative steps towards such an ontology. A more comprehensive version of this ontology would identify the different types and sub-types of economic form, and for each type and sub-type it would identify what sorts of parts, organised in what way, make up instances of the form, and what sorts of tendencies or powers instances of the form have as a result of the processes of interaction between the parts (Elder-Vass, 2010, Chapter 4). We must distinguish between types of economic form and instances of particular economic entities that take this form. Thus, for example, *capitalist firm* is a type of economic form and Microsoft is an instance of the type. As Geoff Hodgson has argued very clearly, the existence of causal types does not entail that all entities of that type are identical, but only that they share some essential characteristics (Hodgson, 2016). Thus Microsoft, for example, is very different from IBM, but both share some essential characteristics and tendencies that arise from them being capitalist firms.

Ontology, though vital, must also be complemented with (and indeed overlaps

with) causal analysis. From the critical realist perspective implicit in this paper, there are two parts to this. First, *retroduction*: a process in which we identify the causal powers possessed by a given type of economic entity and explain the mechanisms that produce them – a task that is closely related to describing the ontology of the economic form involved (Elder-Vass, 2010, pp. 48, 72–3; Lawson, 1997, p. 24). However, the economy is a complex open system, influenced by many different sorts of mechanism, interacting in many different configurations, and there can be no *a priori* presumption that any one mechanism necessarily or always dominates the others (Bhaskar, 1975; Elder-Vass, 2010; Lawson, 1997, 2003). Hence, to explain individual events we must engage in a second process: *retrodiction*. Retrodiction examines how the causal powers of different economic entities interact with others to produce particular events – and at this point we will also need to take into account the interacting powers of other kinds of entities, which may include other social structures, individual human beings, and indeed non-human material objects (Elder-Vass, 2010, pp. 48, 169–179, 2016; Lawson, 1997, p. 221). This highlights another important argument of Lawson's and indeed of many heterodox economists and economic sociologists: that the economy is not somehow distinct from the rest of the social world but is itself fundamentally social. Hence to make sense of it we must engage with the rich and varied ways in which people interact with each other when they are providing for their needs (Lawson, 2003).

Appropriative Practices

Generally, I take it that economic entities have people (and often technological objects) as their parts, and that we can describe some of the most important aspects of their organisation using the concepts of roles and practices. This paper focuses on the latter, and proposes that

we can explain economic forms most usefully as *complexes of appropriative practices*. Let us consider each of the constituent terms in turn.

First, *practices*: a practice is, roughly, a tendency for different people to act in a similar way, and such tendencies, or at least most of the economically and sociologically interesting ones, are primarily the product of social norms (and thus of the social structures I call *norm circles*) (Elder-Vass, 2010, 2012, 2016b). There is, for example, a norm that in most circumstances people should respond when someone else talks to them, and this generates a corresponding practice. Social norms underpin a huge range of social practices, some of which (like this example) are only marginally relevant to the economy, and others of which (e.g. the practice of accepting money in exchange for goods) are enormously important to it.

Second, *appropriative*: a practice is appropriative when it has a significant impact on who receives benefits and/or harms from the processes of production and distribution of goods and services. The concept of production is itself somewhat problematic, as our conventional definitions of it are strongly market oriented (Elder-Vass, 2016a, pp. 24–26), and therefore has to be broadened once we start to see the economy as defined by provisioning rather than the market, so appropriation relates to the distribution of benefits that are not usually included in the economy as well as those that are. In using the term *appropriative* I am trying to avoid imparting any pre-given ethical flavouring to the concept – appropriations may be good, bad, ethically neutral or unevaluated (Elder-Vass, 2016a, pp. 102–103)³.

Third, *complexes*: different appropriative practices may be linked together in certain cases, and they may interact with each other (at the material level it is the people concerned that interact, but as long as we recognise this we may say that practices interact as a kind of shorthand). When a specific group of people

3 Nor am I restricting the term to the first conversion of an item into property, as in some uses. Following Polanyi, I use the term to refer to all transfers (Elder-Vass, 2016a, pp. 102–103; Polanyi, 2001, p. 248).

(and often also a set of material objects) interact in ways that are shaped by these multiple inter-related practices then collectively they may form a social entity with a tendency to have certain characteristic effects, and such entities fall into types that share similar sorts of parts structured by similar sets of relations or practices. Capitalist firms are an example of such a type. Families that work together to share-crop subsistence crops are another. Sets of sellers that compete to produce and sell similar goods to a shared pool of potential customers are another. Each of these types is a distinctive economic form, a structured complex of appropriative practices. Some of these complexes resemble the conventional models of capitalist/market economies, but many do not.

In order to apply this model to the real world we must identify particular instances of the types concerned, though this is an iterative process, as to define the types themselves we must analyse individual cases and identify similarities between them. This paper does not attempt this full process, but instead considers three particular cases from the contemporary digital economy and attempts to identify the key appropriative practices at work in each. While each of these cases is a unique instance, and thus at one level a unique mix of practices, it is also clear that many of these practices are also present in other cases and thus that in identifying them we are identifying building blocks for a more general ontology of economic form.

1 - Wikipedia: gift economy

Wikipedia is the iconic case of the digital gift economy, which is sustained by three inter-related sets of gift economy practices.

Its product is digital information in the form of encyclopaedia pages published on the web and made freely available to anyone with a web browser who wishes to access them. This is digital giving on an enormous scale: In 2014 Wikipedia page views were running at over twelve billion per month, and the English language version has over 4.7 million articles, making it the largest ever encyclopaedia (Dalby, 2009, p. 42; Elder-

Vass, 2016a, p. 144; Wikimedia, 2014). It is also giving that is very clearly part of the economy. Not only does it provide a useful service and thus form part of the provisioning economy, but it is also a service of a kind that has been, and to a small extent still is, sold as a commodity in the market economy. It is hard to see how we could justify excluding Wikipedia pages from our definition of the economy if we were to accept that the Encyclopaedia Britannica, for example, was part of the economy.

The free provision of its product to its users is the first set of gift economy practices that we find in Wikipedia. The second is that this product is produced entirely by unpaid volunteers, who give their labour freely to the project. Without this, it would be impossible to sustain the first practice as the cost of paying staff to edit the encyclopaedia would be prohibitive if there was no corresponding revenue stream. Equally, it is partly because the product is given away for nothing that editors feel motivated to volunteer – because no-one is profiting directly from their work, they do not feel exploited when they work for nothing. When one language-version of Wikipedia stretched this model by deciding to accept paid advertising, many of the editors immediately deserted to work for a ‘forked’ version of the encyclopaedia instead (Tkacz, 2011). There is therefore a tight interdependence between these first two practices.

The fact that editors are not paid also radically changes the dynamics of the organisation of work. Without the threat of dismissal from paid employment available to it, Wikipedia is not in a position to exercise substantial authority over its editors but on the contrary must keep them engaged by coordinating their work in ways that do not alienate them. Thus, for example, work is not allocated out to editors but rather each editor selects their own tasks, and does as many or as few as they choose. Similarly, when disagreements occur on how to conduct the work, these are resolved primarily through processes of normatively-regulated discussion between editors on the Talk pages for the articles concerned, rather than through the exercise of

authority (although there is some authority, and there are certainly cases of conflict that are not resolved amicably) (Forte, Larco, & Bruckman, 2009; O'Sullivan, 2009; Reagle, 2010).

By contrast with work done for wages, people who choose to edit Wikipedia do so for the sake of the work itself. Some edit because they find it satisfying to exercise their intellectual capabilities, some because they want to contribute something to the wider benefit of humanity, and some because they wish to participate in a wider community of editors and receive recognition for their contributions (O'Sullivan, 2009, p. 87; Shirky, 2009, pp. 132–3). This is work as a benefit in itself, not work as a necessary sacrifice in exchange for a living wage. It is hard to imagine a practical form of labour that so thoroughly meets the requirements for unalienated work implicit in Marx's famous account of alienation (Marx, 1978, pp. 74–6).

Although free labour makes Wikipedia's costs relatively low, it must still run large numbers of servers and substantial connections to the Internet, both of which do cost significant amounts of money. This brings us to the third gift economy practice: these costs are met (and also the cost of employing support staff in the Wikimedia Foundation) by appealing for donations to Wikipedia users (Wikimedia Foundation & KPMG, 2014).

Here, then, we have an economic entity based on a complex of interrelated social practices, where there is no market, no commodities, and no 'value' in either the neoclassical or Marxist senses, and yet it produces substantial economic benefits – benefits that neither neoclassical nor Marxist economic theory can explain. By contrast, the approach proposed here begins to make sense of how Wikipedia produces economic benefit – though this is not a benefit that can be measured purely in terms of the monetary value of commodities.

2 - Apple: capitalism, but not as we 'know' it

If Wikipedia is one of the purest cases of the

digital gift economy, Apple, one of the most highly valued companies in the world, is one of the purest cases of the digital commodity economy and of its capitalist mode. Yet Apple does not fit the stereotypical models of either the neoclassical or Marxist traditions particularly well. It does sell its products and therefore the neoclassicals would represent this as a 'market' but this market is nothing like the competitive version that's assumed in the default neoclassical model – the one that is used to justify the notion that markets are the most efficient way to run an economy. Apple's business is not based on competing on price with manufacturers of similar products; on the contrary, it is based on dominating its market and excluding competition through a set of linked practices. First, it differentiates its products from its competitors through a cycle of continual innovation, which has often produced more user-friendly products than the alternatives. Second, it secures the preferential attachment of its customers to its products by combining attractive products with a highly sophisticated marketing strategy which positions its products as more desirable and as higher status than those of its competitors – notably by marking them as 'cool' (McGuigan, 2009). Third, it prevents other companies from impinging on this space by the aggressive use of intellectual property law to suppress imitation of its products. And fourth, it exploits its control of the operating environment on its hardware products to maintain a stranglehold on the supply channels for digital products such as music and apps to users of its hardware, with the consequence that it can act as the middleman for all such sales, taking a substantial portion of the resulting revenue that would otherwise accrue to external suppliers (Elder-Vass, 2016a, Chapter 6).

No doubt a neoclassical economist would respond by calling this a monopoly and claiming that they too have theories of monopoly. Marginalist accounts of monopoly, however, merely scrape the surface of the phenomenon: they are primarily theories of optimal price-setting for abstract monopolists. The actual creation of monopoly tends to be treated as

largely exogenous. But this is just the problem. A theory that treats price equilibration as the only important mechanism will treat monopoly as a problem in price equilibration. But if we want to explain what happens in a market like Apple's, we need to be able to explain the mechanisms through which they achieve and maintain a monopolistic position in the first place. We need to see the full complex of practices that interacts to produce their market power.

The full complex also extends further. In particular, Apple also builds its profits by exploiting its suppliers and their workers, and by avoiding taxation at every opportunity (Duhigg & Kocieniewski, 2012; Duke & Gadher, 2012; Garside, 2012; SACOM, 2012). The exploitation of manufacturing workers, of course, is the piece of this story that Marxists would focus on (e.g. Fuchs, 2014), and it is undeniable that these workers are paid remarkably little by Western standards for their part in the production of Apple products. But this is equally true of Apple's competitors – perhaps more so, given the spotlight that has fallen on Apple in this respect – who make far less profit. We therefore cannot explain Apple's profit simply through the labour theory of value, even if it was a coherent theory to start with, which we may doubt (Elder-Vass, 2016a, pp. 61–69). Paying low wages, like price equilibration, is just one practice or mechanism amongst the complex of practices and mechanisms that interact to produce Apple's profits.

The implication is that the hegemonic and counter-hegemonic models of the economy are not just inadequate to describe the gift economy but also many cases within the market economy. There are many different varieties of market actor, and many different varieties of capitalism, each characterised by a different complex of interacting practices, though all share some common features (cf. Hodgson, 2016). While there is analytical value in identifying commonalities across different varieties we cannot begin from the presumption that one particular commonality, one particular shared mechanism, can explain everything, or even be the dominant causal factor

in explaining everything, that occurs in such an economic system. Apple is indeed an example of a form of capitalism, and many of the mechanisms that it employs are familiar from the business literature, but it is nothing like the models that the neoclassical and Marxist traditions use to 'know' the economy.

3 - Google Search: A gift-commodity hybrid

Perhaps the most interesting feature of the contemporary digital economy is the emergence of novel hybrid economic forms: complexes of appropriative practices that mix capitalist commodity features with practices more usually associated with gift economy forms. One of the best known examples is Google's web search service.

Google provides its search service for nothing – it is freely available to any web user who wishes to take advantage of it without charge. It is a kind of gift practice, though a different kind than we see, for example, within the family (just as there are varieties of capitalism, there are also varieties of gift economy: Elder-Vass, 2015). To be more specific, it is a kind of inducement gift or commercial gift: a gift that is given freely without obligation but is nevertheless designed to generate a commercial benefit (Elder-Vass, 2014a, pp. 245–248). In the case of Google search, the commercial benefit arises from a second, linked practice, which is the sale of advertising on the search results page to a third party (Levy, 2011, Chapter 2). Google only charges advertisers when the user clicks through the ad to the advertiser's site, so strictly speaking it is these clicks that are sold. Thus we have a string of interconnected practices: the gift of search results, the display of connected advertising, and charges to the advertiser when the user clicks through (Elder-Vass, 2016a, Chapter 8).

What makes this connection commercially effective for Google is that when users search for something on the web they automatically, as a necessarily inherent part of the process, provide Google with a vital piece of information: the search term. The consequence is that Google's

advertising algorithms have something to work with that advertisers have always craved: precise information about what a consumer is interested in at this particular moment. With this information, Google can place advertisements on the search results page that closely match the user's current interests and thus hugely increase the likelihood that the user will click through on the ad (Battelle, 2005; Levy, 2011, Chapter 2). Thus there is another transfer that is key to the whole process: a kind of incidental transfer of data from the user to Google, which is a necessary part of the process of searching. Google has also developed the model further by gathering much more data about its users to enable it to personalise advertising even more, but it is the search term that lies at the heart of the system and that plays the most powerful role in making Google's ads appeal to its users.

This set of practices has been enormously profitable for Google, but unlike Apple's model it is easily imitated. Other search providers have copied Google's model, they have sought to imitate its search algorithms, they have linked it to other services that enable them to collect customer data for use in personalisation, and some of the stronger competitors provide a search service that is more or less as good as Google's. Google nevertheless maintains its dominance of the search sector in most of the countries of the world (Return On Now, 2013), partly because it secured user attachment by being the first to introduce the most important innovations, but also because it carefully manages its policies to sustain user attachment – it has been very cautious, for example, about how intrusive its adverts are. Thus, securing the preferential attachment of users is a practice that is significant in both traditional and hybrid forms of capitalism.

Again, then, we have a complex of appropriative practices, this time including both gift practices and commodity practices, which interact to produce an enormously successful

capitalist business – but a very different complex than we see in the case of Apple. And again, this is a complex that the existing models of the economy can tell us little about. Yes, there is a market for advertising on Google, and it is automated in a way that makes it a particularly competitive market, but it is a market that only exists at all because of its integration with a non-market set of appropriative practices, which price equilibration mechanisms play no role in. And yes, both Google and its advertisers employ staff, but very few of them fit with Marx's concept of productive labour, and the vast majority of the operational processing is automated. It is hard to see how one could plausibly attribute much of Google's profits to the extraction of surplus value by the exploitation of wage labour⁴.

Conclusion

We need a new way of analysing the economy. The neoclassical tradition is far too focused on price equilibration, and the Marxist tradition on the exploitation of wage labour, to be able to offer plausible explanations of events in the economy. Both traditions offer one-dimensional explanations of the economy. It's as if we were to attempt to explain the material world purely in terms of gravity. Gravity is important and there is a vast range of phenomena that we could not explain adequately without taking it into account, but if we insisted on explaining *everything* in terms of gravity *alone* we would have to ignore light, heat, volcanoes, clouds, electricity, evolution, global warming, and a vast host of other phenomena, or content ourselves with ludicrously inadequate explanations of them.

Like physical events, economic events, whether single events or larger trends, are not the product of a single mechanism nor are they predominantly caused by one dominant mechanism. They are the product of multiple interacting social practices, which may be configured into a vast range of forms. We

⁴ Elsewhere I have criticized the labour theory of value in general, as well as attempts to treat presumption in Marxist terms as the exploitation of free digital labour (Elder-Vass, 2016a, pp. 61–69, 206–214).

therefore need a different kind of economics or political economy that can offer us a much richer and more complex understanding of the economy – a kind of economics built on a realist ontology of the economy. Just as our understanding of the natural world is far richer and more powerful when we recognise that it is the product of a host of interacting mechanisms, so too is our understanding of the economy.

This paper has given a brief overview of an ontology of economic forms organised around the concept of *complexes of appropriative practices*. Unlike the blinkered ontologies that underpin both mainstream economics and Marxist political economy, this ontology is consistent with the complexity of actual economic causation and the diversity of economic forms in the contemporary economy. With such an ontology in place, we can build a political economy that is far more open to the complexity of the social world and that can as a result make sense of many different economic forms and how they interact, both with each other and with other causal forces, including other kinds of social structure, individual human beings, and non-human material objects (Elder-Vass, 2010, 2016).

The argument has been illustrated with three cases from the digital economy, but these are only three of a vast range of different complexes. Still, although each of these cases has been a single organisation, I do not intend to suggest that every organisation should be treated as a different form. While every organisation is unique at a certain level of concreteness, we can identify *types* of economic form at various levels of abstraction. At one very broad level of abstraction, capitalism is a type, and capitalist firms share some tendencies, notably to prioritise the growth of profit. But at another level not all capitalist firms work in the same way, and thus there are sub-types of capitalism, in which the core practices of capitalism are configured with a range of other practices (Elder-Vass, 2016a, pp. 58–60, 108–109). But there are also many non-capitalist economic forms in the contemporary economy, and indeed many non-market forms. One of the strengths of the approach advocated

here is that it provides us with tools for making sense of all these various types of economic form, unlike the currently dominant traditions of economic thought.

Like the currently dominant traditions, this approach is also a political approach because its underlying ontology has deeply political implications. The neoclassical ontology implies that modern economies can only viably take the market form. The Marxist ontology implies that capitalism can be replaced but only by a societal upheaval that takes us over the threshold of a new mode of production. The ontology outlined here implies that modern economies are already and always the site of multiple competing economic forms and the proper concern of a politics of the economy is which of these forms to favour and which to inhibit, with the objective of changing the mix progressively over time (Elder-Vass, 2014b, 2016a). It is time to take off the blinkers and widen our vision of the economy, both as it is today and as it could be tomorrow.

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